

CURRICULUM VITAE

Name: Yoshihiko Yamada

Date: January 2004

Date and Place of Birth: February 7, 1943; Osaka, Japan

Citizenship: United States

Education:

- 1966 B.S., Biology, Osaka University, Faculty of Science
1968 M.S., Biological Sciences, Osaka University, Faculty of Science
1971 Ph.D., Biological Sciences, Osaka University, Faculty of Science

Brief Chronology of Employment:

- 1972-1975 Research Associate, University of Pittsburgh, School of Medicine, Dept. of Biochemistry, Pittsburgh, Pennsylvania
1975-1979 Research Assistant Professor, University of Pittsburgh, School of Medicine, Dept. of Biochemistry, Pittsburgh, Pennsylvania
1979-1983 Visiting Scientist, Laboratory of Molecular Biology, National Cancer Institute, NIH, Bethesda, Maryland 20892
1983-1985 Visiting Scientist, Laboratory of Developmental Biology and Anomalies, National Institute of Dental Research, NIH, Bethesda, Maryland 20892
1985-1996 Chief, Molecular Biology Section, Laboratory of Developmental Biology, National Institute of Dental Research, NIH, Bethesda, Maryland 20892
1988-1990 Acting Chief, Laboratory of Developmental Biology and Anomalies, National Institute of Dental Research, NIH, Bethesda, Maryland 20892
1994-present Director, DNA Sequencing Core Facility, National Institute of Dental and Craniofacial Research, NIH, Bethesda, Maryland 20892
1996-present Chief, Molecular Biology Section, Craniofacial Developmental Biology and Regeneration Branch, National Institute of Dental and Craniofacial Research, NIH, Bethesda, Maryland 20892
2000-present Senior Biomedical Research Service (SBRS)

Honors and other special scientific recognition:

- 1986 NIH Director's Award
1992 Debio Peptide Award
1996 William J.Gies Award
1985, 1989 Consultant, National Institute of Arthritis, Musculoskeletal and Skin Diseases on Program Projects
1992 Organizer, International Symposium on Extracellular Matrix, International Symposium on Basement Membranes, International Symposium on Glycobiology and Matrix Molecules in Health and Diseases, Internet

Symposium on Regulation of Gene Expression and Morphogenesis by
Extracellular Matrix
1999-present External Advisory Committee, MD Anderson Cancer Center

Societies:

American Society of Biochemistry and Molecular Biology
American Society of Cell Biology
International Society for Matrix Biology
International & American Associations for Dental Research

Patents:

1. "Peptides with laminin activity" by Y. Yamada, J. Graf, Y., Iwamoto, F. Robey, H.K. Kleinman, M. Sasaki, and G.R. Martin, U.S. Patent 5,092,885.
2. "Laminin A chain: deduced amino acid sequence, Expression vectors and active synthetic peptides" by Y. Yamada, H.K. Kleinman, M. Sasaki, and G.R. Martin, U.S. Patent 5,211,657.

Editorial Board:

1993-95 Arthritis and Cartilage, Frontiers in Bioscience
1999-present Associate Editor, Matrix Biology
2000-present Editorial member, Journal of Biological Chemistry

Invited Lectures and Presentations since 1987:

1. British Connective Tissue Society on Molecular Biology of the Extracellular Matrix. Bristol, England
2. NATO-Advanced Research Workshop on Mesenchymal Epithelial Interactions in Neural Development. Berlin, Germany
3. Gordon Conference on Fibronectin. Santa Barbara, California
4. Gordon Conference on Structural Macromolecules: Collagen., Plymouth, New Hampshire
5. FASEB Summer Research Conference on Biology of Metastases, Saxtons River, Vermont
6. Conference on the Cell in Contact II: Adhesion Molecules in Development and Regeneration. Neurosciences Institute, New York, New York
7. EMBO Workshop on Extracellular Matrix and Cell Differentiation. Santa Margherita Ligure, Italy
8. Department of Connective Tissue Research, Max Planck Institute, Munich, Germany
9. Smith-Kline-Beckman, Philadelphia, PA

10. Department of Pathology, University of Texas Medical School, San Antonio, Texas
11. Imperial Cancer Research Fund Laboratories, London, England
12. Biozentrum, University of Basel, Switzerland
13. Laboratory of Molecular Biology, National Institute of Allergy and Infectious Diseases
14. Laboratory of Molecular Carcinogenesis, National Cancer Institute
15. Laboratory of Molecular Biology, National Cancer Institute
16. Laboratory of Cellular Metabolism, National Heart, Lung and Blood Institute
17. Laboratory of Molecular Genetics, National Institute of Neurological and Communicative Disorders and Stroke
18. Connective Tissue Research Institute, University of Pennsylvania, Philadelphia, Pennsylvania
19. Conference on Molecular and Genetic Basis of Growth and Development. National Institutes of Health, Bethesda, Maryland
20. The 2nd Conference of Molecular Biology and Pathology of Matrix, Philadelphia, Pennsylvania
21. Gordon Conference on Basement Membranes, New Hampshire
22. INSERM Conference on Adhesive Reactions and Cellular Functions, Seillac, France
23. Clinical Genetics Conference on Heritable Disorders of Connective Tissue and Skeletal Dysplasias, Baltimore, Maryland
24. Conference on Research Advances in Prenatal Craniofacial Development, Research Triangle Park, North Carolina
25. Japanese Society of Inflammation, Tokyo, Japan
26. Collagen Corp., Palo Alto, CA
27. Department of Anatomy and Cell Biology, University of Virginia, Charlottesville, VA
28. Gordon Conference on Cell Contact and Adhesion, New Hampshire
29. Gordon Conference on Structural Molecules: Collagen, New Hampshire
30. Laboratory of Immunology, National Eye Institute
31. Laboratory of Pharmacology, National Institute of Child Health and Development
32. Joint Meetings of The American Society for Cell Biology and The American Society for Biochemistry and Molecular Biology, San Francisco, California

33. Conference of The New York Academy of Sciences on Collagen, Bethesda, Maryland
34. National Institute on Aging, Baltimore, Maryland
35. Cancer Center, Howard University, Washington, D.C.
36. Laboratory of Molecular Biology, National Institute of Neurological Disorders and Strokes. Bethesda, MD
37. Department of Cell Biology and Anatomy, University of Alabama at Birmingham, Alabama
38. University of Texas Health Center, Tyler, Texas
39. Italian Society of Cell Biology, Salsomaggiore, Italy
40. Gordon Research Conference on Basement Membranes, Wolfeboro, New Hampshire
41. UCLA Symposium on Synthetic Peptides: Approaches to Biological Problems, Frisco, Colorado
42. International Symposium on Molecular and Developmental Biology of the Extracellular Matrix, Schloss Ringberg, West Germany
43. The 49th Annual Meeting of Japanese Cancer Association, Sapporo, Japan
44. The 5th International Symposium on Basement Membranes, Oulu, Finland
45. The 3rd International Conference on the Molecular Biology and Pathology of Matrix, Philadelphia, Pennsylvania
46. Shriner's Hospital, Portland, Oregon
47. Department of Pathology, University of Minnesota, Minneapolis, Minnesota
48. American Society of Cell Biology Conference on Biology of Plant and Animal Extracellular Matrix, Airlie, Virginia
49. Gordon Conference on Basement Membranes, Wolfeboro, New Hampshire
50. International Symposium on Structure and Function of Extracellular Matrix Proteins, Schloss Ringberg, Germany
51. The fourth International Conference on the Molecular Biology and Pathology of Matrix, Philadelphia, Pennsylvania
52. Department of Anatomy and Cell Biology, Georgetown University, Washington, DC.
53. European Research Conference on Biology of Cartilage and Bone, Le Bischenberg, France
54. Department of Biochemistry, University of Pennsylvania School of Dental Medicine, Philadelphia, Pennsylvania

55. MD Anderson Cancer Center, Houston, Texas
56. Second International Workshop on Alport Syndrome, New Haven, Connecticut
57. The Sixth International Symposium on Basement Membranes, Mishina, Japan
58. International Symposium on Extracellular Matrix, Okayama, Japan
59. Keystone Symposium on Extracellular Matrix in Development and Diseases, Breckenridge, Colorado
60. The Fifth International Conference on the Molecular Biology and Pathology of Matrix, Philadelphia, Pennsylvania
61. The Yutaka Nagai Symposium on Matrix Biology, Tokyo, Japan
62. Symposium on Molecular Mechanisms of Extracellular Matrix Development, Schloss Ringberg, Germany
63. Gordon Conference on Structural Molecules: Collagen, New Hampshire
64. Keystone Symposium on Molecular and Cellular Biology, Keystone, Colorado
65. The 43th Matrix Society Meeting, Nagoya, Japan
66. The 6th International Conference on the Molecular Biology and Pathology of Matrix, Philadelphia, Pennsylvania
67. Symposium on Molecular Mechanisms of Extracellular Matrix Development, Schloss Ringberg, Germany
68. Ciba Foundation Symposium on Dental Enamel, London, England
69. The International Conference on Glycoconjugate and Matrix Molecules in Health and Disease, Bethesda, Maryland
70. Gordon Conference on Collagen, New London, New Hampshire
71. The International Symposium on Craniofacial Morphogenesis, Bethesda, Maryland
72. Department of Molecular Genetics, MD Anderson Cancer Center, Houston, Texas
73. The 71st Annual Meeting of Japanese Biochemical Society, Nagoya, Japan
74. International Conference on Molecular Interactions of Proteoglycans, Shonan, Japan
75. Opportunities in Cartilage Biology and OA at NIH, Bethesda, Maryland
76. Workshop on the Genetics of Human Dentition, Bethesda, Maryland
77. Department of Orthopaedic Surgery, Kyushu University, Fukuoka, Japan

78. Faculty of Pharmacology, Osaka University Graduate School, Osaka, Japan
79. Rush Medical College, Chicago, Illinois
80. International Workshop of Japan Orthopaedic Surgery , Gifu, Japan
81. International Symposium on Genetics and Molecular Biology of Craniofacial Development, Seoul, Korea
82. Gordon Conference on Proteoglycans, Andover, New Hampshire
83. Gordon Conference on Basement Membrane, Plymouth, New Hampshire
84. The 13th Confereenc of the Japanese Paediatric Orthopaedic Association, Fukuoka, Japan
85. The 14th Annual Skeletal Dysplasia of the Japanses Orthopaedic Assocaiton, Fukuoka Japan
86. Aichi Medical University Institute for Molecular Science of Medicine, Nagoya, Japan
87. Department of Medicine Columbia University College of Physicians & Surgeons, New York, New York
88. Department of Medicien, Johns Hopkins University School of Medicine, Baltimore, Maryland
89. The Conference on Multiple Hereditary Exostoses, Tucson, Arizona
90. Gordon Conference on Cartilage Biology and Pathology, Ventura, California
91. Department of Pathology, University of Minnesota School of Medicine, Minneapolis, Minnesota
92. The 3rd International Conference on Pathology of Proteoglycans, Parma, Italy
93. The 17th Annual Meeting of the Japanese Society of Cartilage Metablsim, Tokyo, Japan (March, 2003)
94. The 36th Annual Meeting of the Japanese Society for Connective Tissue Research, Fukuoka, Japan (June, 2004)
95. The 33rd Annual Midwest Connective Tissue Workshop, Cleveland, Ohio
96. The Workshop on Development and Disease of Neuromuscular System, Vienna, Austria
97. The Benoit de Crombrughe Sympisum, Houston, Texas
98. The 44th Annual Meeting of Cell Biology, Washington DC
99. The 6th PanPacific Connective Tissue Societies Symposium, Waikoloa, Hawaii

Bibliography:

1. Yamada, Y., Iwai, Y., and Nozu, K. Complex formation between T2-DNA and T2-RNA of *Escherichia coli* irradiated with ultraviolet light. *Ann. Rev. Biol. Works, Fac. Sci. Osaka Univ.* 14: 1-15, 1966.
2. Nozu, K., Yamada, Y., and Honjo, I. Complex formation between T2-DNA and T2-RNA of *Escherichia coli* irradiated with ultraviolet light. *The Proc. Radiation Biol. and Cancer* pp. 112-135, 1967.
3. Yamada, Y. and Nozu, K. Base complementarily between rapidly labeled RNA In *Escherichia coli* B infected ultraviolet-irradiated T2 phages and T2-DNA. *Biochim. Biophys. Acta* 169: 67-79, 1968.
4. Nozu, K. and Yamada, Y. Pyrimidine dimers and uridine hydrate on UV-irradiated MS2-RNA. *Radiation Biology (Japan)* 9: 39-43, 1971.
5. Yamada, Y., Shigeta, A., and Nozu, K. Ultraviolet effects on biological function of RNA phage MS2. *Biochim. Biophys. Acta* 299: 121-135, 1973.
6. Yamada, Y., Whitaker, P.A., and Nakada, D. Functional instability of T7 early mRNA. *Nature* 248: 335-338, 1974.
7. Hesselbach, B.A., Yamada, Y., and Nakada, D. Isolation of an inhibitor protein of *E. coli* RNA polymerase from T7 phage infected cells. *Nature* 252: 71-74, 1974.
8. Yamada, Y., Whitaker, P.A., and Nakada, D. Early to late switch in bacteriophage T7 development: Functional decay of T7 early messenger RNA. *J. Mol. Biol.* 89: 293-303, 1974.
9. Whitaker, P.A., Yamada, Y., and Nakada, D. F factor-mediated restriction of bacteriophage T7: Synthesis of RNA and protein in T7 infected *Escherichia coli* F and F⁺ cells. *J. Virol.* 16: 1380-1390, 1975.
10. Yamada, Y., Whitaker, P.A., and Nakada, D. Chemical stability of bacteriophage T7 early mRNA. *J. Virol.* 16: 1683-1687, 1975.
11. Yamada, Y. and Nakada, D. F factor-mediated restriction of bacteriophage T7: Protein synthesis of cell-free systems from T7 infected *Escherichia coli* F and F⁺ cells. *J. Virol.* 16: 1483-1491, 1975.
12. Yamada, Y., and Nakada, D. Early to late switch in bacteriophage T7 development: No translational discrimination between T7 early mRNA and late mRNA. *J. Mol. Biol.* 100: 35-45, 1976.
13. Yamada, Y., and Nakada, D. Translation of T7 RNA *in vitro* without cleavage by RNase III. *J. Virol.* 18: 1151-1159, 1976.
14. Yamada, Y., Silnutzer, J., and Nakada, D. Mutant of *Escherichia coli* which blocks T7 bacteriophage assembly: Accumulation of short T7 DNA. *J. Mol. Biol.* 121: 99-111, 1978.

15. Yamada, Y., Calame, K.L., Grindley, J.N., and Nakada, D. Location of an ampicillin resistance transposon *Tnl701* in a group of small, non-transferring plasmids. *J. Bacteriol.* 137: 990-999, 1979.
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17. Yamada, Y., Silnutzer, J., and Nakada, D. Accumulation of bacteriophage T7 head-related particles in an *Escherichia coli* mutant. *J. Virol.* 31: 201-219, 1979.
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- demonstration of restriction fragment length polymorphism at the 3' end of the gene. *Biochemistry* 5: 6343-6348, 1985.
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